AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A method of recovering anhydrous hydrogen fluoride from an azeotrope or azeotrope-like mixture comprising hydrogen fluoride and a halogenated hydrocarbon comprising:

providing an azeotrope or azeotrope-like mixture comprising hydrogen fluoride and at least one halogenated hydrocarbon; and

extracting hydrogen fluoride from said mixture by contacting said mixture with a solution comprising from about 65 to ~~of less than~~ about 93 wt.% sulfuric acid ~~solution~~ in water.

2. (Canceled).

3. (Canceled).

4. (Currently Amended): The method of claim 1 wherein said sulfuric acid solution comprises from about ~~60~~ 65 to about 85 wt% of sulfuric acid based on the total weight of the sulfuric acid solution.

5. (Previously Presented): The method of claim 1 wherein said sulfuric acid solution comprises from about 75 to about 85 wt% of sulfuric acid based on the total weight of the sulfuric acid solution.

6. (Previously Presented): The method of claim 1 wherein said sulfuric acid solution comprises about 80 wt% of sulfuric acid based on the total weight of the sulfuric acid solution.

7. (Currently Amended): A method of recovering anhydrous hydrogen fluoride from a mixture comprising hydrogen fluoride and a halogenated hydrocarbon comprising:

providing a mixture comprising hydrogen fluoride and at least one halogenated hydrocarbon; and

extracting hydrogen fluoride from said mixture by contacting said mixture with a solution <u>comprising from about 65 to</u> ~~of less than~~ about 93 wt.% sulfuric acid ~~solution~~ in water;

wherein said halogenated hydrocarbon is a hydrochlorofluorocarbon, a hydrochlorocarbon, or some combination thereof.

8. (Previously Presented): The method of claim 7 wherein said halogenated hydrocarbon is selected from the group consisting of 1-chloro-1,2,2,2-tetrfluoroethane ("HCFC-124"), 1,1-dichloro-2,2,2-trifluoroethane ("HCFC-123"), chlorodifluoromethane ("HCFC-22"), and mixtures of two or more thereof.

9. (Canceled).

10. (Original): The method of claim 1 wherein said mixture comprising hydrogen fluoride and at least one halogenated hydrocarbon is a reaction product mixture obtained by reacting hydrogen fluoride with a chlorinated starting compound.

11. (Original): The method of claim 10 wherein said chlorinated starting compound is selected from the group consisting of 1,1,1,3,3-pentachloropropane, 1,1,1,2-tetrachloroethane, perchloroethylene, chloroform, 1,1,1,3,3-pentachlorobutane, 1,1,1,3,3,3-hexachloropropane, methylene chloride, and 1,1,1-trichloroethane.

12. (Original): The method of claim 10 wherein said chlorinated starting compound comprises 1,1,1,3,3-pentachloropropane.

13. (Original): The method of claim 1 wherein the HF extracted from said mixture in said extraction step is further subjected to flash distillation to produce anhydrous HF.

14. (Original): The method of claim 1 wherein the HF extracted from said mixture in said extraction step is further subjected to flash distillation and column fractionation distillation to produce anhydrous HF.

15. (Original): The method of claim 1 wherein the anhydrous hydrogen fluoride produced contains less than about 200 ppm of sulfur impurities.

16. (Original): The method of claim 15 wherein the anhydrous hydrogen fluoride produced contains less than about 100 ppm of sulfur impurities.

17. (Original): The method of claim 16 wherein the anhydrous hydrogen fluoride produced contains less than about 75 ppm of sulfur impurities.

18. (Original): The method of claim 15 wherein the sulfuric acid layer obtained via the extraction step contains less than about 5000 ppm of TOC impurities.

19. (Original): The method of claim 15 wherein the sulfuric acid layer obtained via the extraction step contains less than about 3000 ppm of TOC impurities.

20. (Original): The method of claim 15 wherein the sulfuric acid layer obtained via the extraction step contains less than about 1000 ppm of TOC impurities.

21. (Original): A method of producing anhydrous hydrogen fluoride comprising:

providing a mixture comprising hydrogen fluoride and at least one halogenated hydrocarbon;

extracting hydrogen fluoride from said mixture with a solution of at least 98 wt.% sulfuric acid in water to provide an acid/HF mixture;

flash distilling said acid/HF mixture to provide a first HF product; adding water to the first HF product to form a diluted HF mixture; and distilling said diluted HF mixture to obtain anhydrous hydrogen fluoride.

22. (New): The method of claim 7 wherein said sulfuric acid solution comprises from about 65 to about 85 wt% of sulfuric acid based on the total weight of the sulfuric acid solution.